APPLICANT(S): PERETS, Youa et al.

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22. (Currently Amended) An apparatus comprising:

a receiver to provide symbols of two or more received multipath components;

a processor to group said symbols of the two or more multipath components into first and second groups based on a relative delay between the desired symbol of one multipath component and the desired symbol of another multipath component; and

a decoder having a processing window unit to decode [[al] the desired symbol within said first and second groups of symbols of the two or more multipath components;

- a first delay unit to delay a first processing result of the first group; and a second delay unit to delay a second processing result of the second group.
- 23. (Original) The apparatus of claim 22 comprising: a combiner to combine the first processing result with the second processing result.
- 24. (Original) The apparatus of claim 22 wherein the processing window unit comprises a two or more processing windows to processes samples of a received baseband signal in the first and second groups by minimum mean squared error multiuser detection.
- 25 (Original) The apparatus of claim 23 wherein the combiner to combine the first processing result with the second processing result by using a maximal ratio combining method.
- 26. (Currently Amended) A wireless communication device comprising:

an internal antenna to receive a signal having multipath components:

a processor to group symbols of two or more multipath components in first and second groups based on a relative delay between the desired symbol of one multipath component and the desired symbol of another multipath component; and

a decoder having at least a first processing window unit to detect [[all the desired symbol within [[a]] the first group of the multipath components and a second processing window unit to detect the desired symbol within [[a]] the second group of the multipath components.

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27. (Original) The wireless communication device of claim 26, comprising:

a combiner to combine a first output signal of the first processing window unit with a second output signal of the second processing window unit to provide a single output signal.

- 28. (Currently Amended) The wireless communication device of claim 26, comprising wherein the [[a]] processor is configured to determine a length of a first processing window of the first processing window unit and a second processing window of the second processing window unit wherein, the length the first processing window and the length of the second processing window are greater then a length of the desired symbol.
- 29. (Currently Amended) The wireless communication device of claim 28, comprising wherein the [[a]] processor is configured to position the first and second processing windows of the first and second processing windows units around the desired symbol within the first group and the second group, respectively.
- 30. (Cancelled)
- 31. (Original) The wireless communication device of claim 28 wherein the first or second processing window processes samples of the received signal in the first and second groups by minimum mean squared error multiuser detection.
- 32. (Original) The wireless communication device of claim 27 wherein the combiner to combine the first processing result with the second processing result by using a maximal ratio combining method.

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33. (Currently Amended) An article comprising: a <u>computer-readable</u> [[storage]] medium, having stored thereon instructions, that when executed, result in:

grouping <u>symbols of</u> two or more multipath components of a received baseband signal in [[one]] <u>two</u> or more groups for detecting a desired symbol based on a delay spread of the two or more components between the desired symbol of one multipath component to the desired symbol of another multipath component.

- 34. (Original) The article of claim 33 wherein the instructions when executed result in: grouping symbols within a first delay spread range in a first group; and grouping symbols within a second delay spread range in a second group.
- 35. (Currently Amended) The article of claim 33 wherein the instructions when executed result in:

processing samples of the symbols of the received baseband signal in the group by minimum mean squared error multiuser detection.

36. (Currently Amended) The article of claim 34 wherein the instructions when executed result in:

applying first and second processing windows to the first and second groups using, respectively; and

combining soft outputs of the first and second processing windows into a desired output related to a detected symbol.

37. (New) The article of claim 33, wherein the instructions when executed result in: positioning two or more processing windows around the desired symbol within the two or more groups, respectively so as to encompass said desired symbols within said processing windows.